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Checklist of Turkish Doryctinae (Hymenoptera, Braconidae)

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Abstract: The Doryctinae (Hymenoptera: Braconidae) species recorded from Turkey until the end of 2015 are listed, the present total number being 63 changes with respect to the previous Turkish fauna are briefly annotated and the distributions for all the species in each of the 62 biogeographical provinces of Turkey are presented. The presented checklist covers zoogeographical region(s), hosts and parasitoid data for the species. In total, 63 species belonging to 25 genera are reported for Turkey. The number of species of each genus is represented by: *Clinocentrus* HALIDAY: one, *Coeloides* WESMAEL: two, *Colastes* HALIDAY: six, *Dendrosoter* WESMAEL: three, *Dendrosotinus* TELENGA: one, *Dolopsidea* HINCKS: two, *Doryctes* HALIDAY: four, *Ecphylus* FOERSTER: one, *Hecabalodes* WILKINSON: one, *Hellenius* TOBIAS: one, *Heterospilus* HALIDAY: seven, *Hormius* NEES: three, *Leluthia* CAMERON: four, *Oncophanes* FOERSTER: one, *Ontsira* CAMERON: two, *Pachystigmus* HELLÉN: one, *Pambolus* HALIDAY: one, *Polystenus* FOERSTER: one, *Pseudohormius* TOBIAS & ALEXEEV: one, *Rhaconotus* RUTHE: six, *Rhoprocentrus* MARSHALL: one, *Rhysipolis* FOERSTER: four, *Rhyssalus* HALIDAY: one, *Spathiomorpha* TOBIAS: one, *Spathius* NEES: seven.

Key words: Hymenoptera, Braconidae, Doryctinae, Turkey, checklist.

Introduction

The Doryctinae are one of the most diversified subfamilies of the family Braconidae, with more than 186 genera in 16 tribes and more than 1.609 species. Most of this genera and species were recorded from tropical and subtropical region. (BELOKOBYSKIJ 2001; YU et al. 2012). The Doryctinae fauna of Turkey is still rather poorly studied and only 63 species were recorded so far from 62 Turkish provinces (SCHIMITSCHEK 1939, 1941, 1944; HEDQVIST 1976; BELOKOBYSKIJ 2001; BEYARSLAN & AYDOGDU 2013; BEYARSLAN 2015). All parasitoid doryctine species, with the possible exception of *Sericobracon*, are idibiont ctoparasitoids associated with hosts that are concealed to various extents, ranging from leaf-miners and stem-borers to deeply concealed xylophagous beetles. Typical of wasps with this biology, their venom induces permanent flaccid host paralysis. They are important population regulatory factors of species of Coleoptera, Diptera, Lepidoptera, Hymenoptera, and Diptera (SHAW & HUDDLESTON 1991). Coleoptera probably constitute most hosts but a few species are parasitoids of members of other Order. A relatively few species are involved in biological control, either through release or serendipitous utilisation of available harmful hosts (QUICKE 2015).

Materials and methods

Most of the data for the checklist were assembled from the previously published records by SCHIMITSCEK (1939, 1941, 1944); HEDQVIST (1976); BELOKOBYLSKIJ (2001); BEYARSLAN & AYDOGDU (2013); BEYARSLAN 2015). The last study was conducted to determine the fauna of Turkey between the years 1979-2015. For it were collected samples from various localities of Turkey. Also a map showing the geographical zones of Turkey is given (Fig. 1). The genera and species are tabulated alphabetically therein. The species recorded from Asian Turkey are marked with an asterisk (*) while those recorded from European Turkey are marked with two asterisks (**).



Fig. 1: Map of Turkey showing provinces. = The species of Doryctinae collected provinces
 = The species of Doryctinae uncollected provinces

Results

Genus *Clinocentrus* HALIDAY, 1833

**Clinocentrus vestigator* (HALIDAY, 1836)

Rogas (Clinocentrus) vestigator HALIDAY, 1836: 4.

Clinocentrus vestigator; CURTIS 1837.

Distribution in Turkey: Erzurum (BEYARSLAN 2015).

General distribution: Western Palearctic. Denmark, Finland, Germany, Ireland, Italy, Kazakhstan, Lithuania, Norway, Poland, Russia, Switzerland, Ukraine, United Kingdom.

Hosts: **Lepidoptera**, **Epermeniidae**: *Epermenia chaerophylella* GOEZE, 1783, *E. illigerella* (HÜBNER, 1813). **Ypsolophidae**: *Ypsolopha vittella* (LINNAEUS, 1758).

Genus *Coeloides* WESMAEL, 1838

**Coeloides abdominalis* (ZETTERSTEDT, 1838)

Bracon abdominalis ZETTERSTEDT, 1838: 358-408.

Coeloides abdominalis; DALLA TORRE 1898.

Distribution in Turkey: Eastern Black Sea region (SCHIMITSCHEK 1941).

General distribution: Palaearctic. Armenia, Austria, China, Czech Republic, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Japan, Korea, Norway, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom.

Host: **Hymenoptera, Tenthredinidae:** *Pseudodineura fuscula* (KLUG, 1816).

****Coeloides forsteri* HAESELBARTH, 1967**

Distribution in Turkey: Artvin (Y. Aksu obtained from *Ips sexdentatus*) (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Czech Republic, Czechoslovakia, Finland, France, Georgia, Germany, Poland, Slovakia, Switzerland.

Hosts: **Coleoptera, Scolytinae:** *Ips sexdentatus* (BORNER, 1767) (BEYARSLAN 2015), *Ips typographus* (LINNAEUS, 1758). **Curculionidae:** *Pissodes notatus*, *P. (P.) piceae* (ILLIGER, 1807), *P. (P.) piniphilus* (HERBST, 1797).

Genus *Colastes* HALIDAY, 1833

****Colastes (Colastes) braconius* HALIDAY, 1833**

Colastes braconius HALIDAY, 1833: 1.

Colastes (Colastes) braconius; KU, BELOKOBYSKIJ, CHA 2001: 23.

Distribution in Turkey: Bolu, Kastamonu, Trabzon, Zonguldak (BEYARSLAN 2015).

General distribution: Palaearctic. Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Slovakia, Sweden, Switzerland. Introduced to USA-Delaware, USA-New Jersey, USA-Pennsylvania (HENDRICKSON & BARTH 1979).

Hosts: **Coleoptera, Curculionidae:** *Cryptorhynchus lapathi* (LINNAEUS, 1758), *Rynchaenus avellanae* (DONOVAN, 1797), *R. fagi* (LINNAEUS, 1758). **Diptera, Agromyzidae:** *Agromyza albitarsis* (MEIGEN, 1830), *A. frontella* (RONDANI, 1875), *A. nana* (MEIGEN, 1830), *Amauromyza verbasci* (BOUCHE, 1847), *A. verbasci* (BOUCHE, 1847), *Aulagromyza cornigera* (GRIFFITHS, 1973), *A. hendeliana* (HERING, 1926), *Chromatomyia aprilina*, (GOUREAU, 1851), *C. loniceriae* (ROBINEAU-DESVOIDY, 1851), *L. approximata* (HENDEL, 1920), *L. lutea* (MEIGEN, 1830), *L. pusilla* (MEIGEN, 1830), *Phytoliriomyza melampyga* (LOEW, 1869), *P. Variegata* (MEIGEN, 1830), *Phytomyza aconiti* (HENDEL, 1920), *P. affinis* (FALLÉN, 1823), *P. albiceps* (MEIGEN, 1830), *P. chaerophylli* (KALTENBACH, 1856), *P. leucanthemi* (HERING, 1935), *P. ranunculi* (SCHRANK, 1803), *P. xylostei* (KALTENBACH, 1862). **Hymenoptera, Tenthredinidae:** *Fenus ulmi* (SUNDEVALL, 1844), *Heterarthrus vagans* (FALLÉN, 1808), *Messa hortulana* (KLUG, 1818), *Pontania bella* (ZADDACH, 1876), *P. pedunculi* (HARTIG, 1837), *P. proxima* (SERVILLE, 1823). **Lepidoptera, Coleophoridae:** *Coleophora gryphipennella* (HÜBNER, 1796). **Cosmopterigidae:** *Cosmopterix scribaeiella* (ZELLER, 1850). Elachistidae: *Elachista humilis* (ZELLER, 1850). **Eriocraniidae:** *Dyseriocrania subpurpurella* (HAWORTH, 1828). **Gracillariidae:** *Cameraria ohridella* (DESCHKA & DIMIC, 1986). **Gracillariidae:** *Parornix betulae* (STANTON, 1854), *P. acerifoliella* (ZELLER, 1839), *P. blancardella* (FABRICIUS, 1781), *P. cavella* (ZELLER, 1846), *P. comparella* (DUPONCHEL, 1843), *P. coryli* (NICELLI, 1851), *P. dubitella* (HERRICH-SCHÄFFER,

1855), *P. emberizaepennella* (BOUCHE, 1834), *P. esperella* (GOEZE, 1783), *P. fitchella* (CLEMENS, 1860), *P. froelichiella* (ZELLER, 1839), *P. geniculella* (RAGONOT, 1874), *P. harrisella* (LINNAEUS, 1761), *P. heegeriella* (ZELLER, 1846), *P. insignitella* (ZELLER, 1846), *P. lantanella* (SCHRANK, 1802), *P. lautella* (ZELLER, 1846), *P. leucographella* (ZELLER, 1850), *P. maestingella* (MÜLLER, 1764), *P. messaniella* (ZELLER, 1846), *P. nicellii* (STANTON, 1851), *P. nigrescentella* (LOGAN, 1851), *P. oxyacanthae* (FREY, 1856), *P. platani* (STAUDINGER, 1870), *P. platanoidella* (JOANNIS, 1920), *P. pomonella* (HERRICH-SCHÄFFER, 1855), *P. Populifoliella* (TREITSCHKE, 1833), *P. pyrifoliella* (GERASIMOV, 1933), *P. quercifoliella* (ZELLER, 1839), *P. quinnata* (GEOFFROY, 1785), *P. quinquegutella* (STANTON, 1851), *P. robinella* (CLEMENS, 1859), *P. roboris* (ZELLER, 1839), *P. salicicolella* (SIRCOM, 1848), *P. salictella* (ZELLER, 1846), *P. saportella* (ZELLER, 1839), *P. schreberella* (FABRICIUS, 1781), *P. sorbi* (FREY, 1855), *P. spinicolella* (ZELLER, 1846), *P. stettinensis* (NICELLI, 1852), *P. strigulatella* (LIENIG & ZELLER, 1846), *P. tenerella* (JOANNIS, 1915), *P. trifasciella* (HAWORTH, 1828), *P. tristrigella*, *P. ulmifoliella* (HÜBNER, 1817), *Antispila treitschkiella* (FISCHER von ROSLERSTAMM, 1843), *Heliozela betulae* (SORHAGEN, 1885), *Lampides boeticus* (LINNAEUS, 1767), *Lyonetia rajella* (LINNAEUS, 1758), *Mompha epilobiella* (DENIS & SCHIFFERMÜLLER, 1775), *Mompha raschkiella* (ZELLER, 1839). **Lepidoptera, Nepticulidae:** *Ectoedemia septembrella* (STANTON, 1849), *Stigmella anomalella* (GOEZE, 1783), *S. hemargyrella* (KOLLAR, 1832), *S. microtheriella* (STANTON, 1854), *S. nylandiella* (TENGSTROM, 1848), *S. Plagicolella* (STANTON, 1854), *S. ruficapitella* (HAWORTH, 1828), *Stigmella sorbi* (STANTON, 1861), *Stigmella splendidissima* (HERRICH-SCHÄFFER, 1855), *Stigmella tityrella* (STANTON, 1854). **Pyralidae:** *Pempeliella dilutella* (DENIS & SCHIFFERMÜLLER, 1775). **Tischeriidae:** *Emmetia gaunacella* (DUPONCHEL, 1843), *Emmetia heinemann* (WOCKE, 1871), *Emmetia marginea* (HAWORTH, 1828), *Tischeria dodonaea* (STANTON, 1858), *Tischeria ekebladella* (BJERKANDER, 1795), *Selania leplastriana* (CURTIS, 1831), *Tortrix viridana* (LINNAEUS, 1758), *Ypsolopha dentella* (FABRICIUS, 1775).

****Colastes (Colastes) vividus* PAPP, 1975**

Distribution in Turkey: Çorum (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Germany, Hungary, Moldova, Poland, Tunisia.

Hosts: **Lepidoptera, Gracillariidae:** *Cameraria ohridella* DESCHKA & DIMIC, 1986, *Phyllonorycter spinicolella* (ZELLER, 1846). **Tischeriidae:** *Emmetia heinemanni* (WOCKE, 1871).

****Colastes (Fungivenator) aciculatus* TOBIAS, 1986**

Distribution in Turkey: Erzincan (BEYARSLAN 2015).

General distribution: Western Palearctic. Czech Republic, Russia.

Hosts: Unknown.

****Colastes (Shawiana) catenator* (HALIDAY, 1836)**

Rogas (Colastes) catenator HALIDAY, 1836: 4.

Colastes (Shawiana) catenator; BELOKOBYLSKIJ 1994: 5-77.

Distribution in Turkey: Ordu (BEYARSLAN 2015).

General distribution: Palearctic. Austria, Belarus, Bulgaria, Czechoslovakia, Georgia, Germany, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Mongolia, Netherlands, Poland, Russia, Ukraine, United Kingdom.

Hosts: **Hymenoptera, Tenthredinidae:** *Fenusa dohrni* (TISCHBEIN, 1846), *F. pumila* LEACH, 1817, *F. Pusilla* (LEPELETIER, 1823), *F. rubi* BOIE, 1848, *F. ulmi* SUNDEVALL, 1844, *Heterarthrus*

aceris (KALTENBACH, 1856), *H. Vagans* (FALLÉN, 1808), *Messa herticulana* (KLUG, 1818), *M. nana* (KLUG, 1818), *Metallus albipes* (CAMERON, 1875), *M. pumilus* (KLUG, 1816), *Profenusa pygmaea* (KLUG, 1816), *Scolioneura betuleti* (KLUG, 1816). **Lepidoptera, Gracillariidae:** *Parna tenella* (KLUG, 1816), *Phyllonorycter quercifoliella* (ZELLER, 1846). **Micropterigidae:** *Eriocrania semipurpurella* (STEPHENS, 1835).

****Colastes (Shawiana) laevis* (THOMSON, 1892)**

Exotheucus (Exotheucus) laevis THOMSON, 1892: 16.

Colastes laevis; 1957: 37.

Colastes (Shawiana) laevis; BELOKOBYSKIJ 1994: 5-77.

Distribution in Turkey: ars (BEYARSLAN 2015).

General distribution: Palearctic and Oriental. Belarus, China, Czech Republic, Czechoslovakia, Finland, Germany, Korea, Lithuania, Mongolia, Netherlands, Norway, Russia, Sweden, Switzerland, Ukraine, United Kingdom.

Hosts: **Hymenoptera, Tenthredinidae:** *Euura atra* (JURINE, 1807), *Euura mucronata* HARTIG, 1837, *Fenusa dohrnii* (TISCHBEIN), *Heterarthrus aceris* (KALTENBACH, 1856), *H. microcephalus* (KLUG, 1818), *H. vagans* (FALLÉN, 1808), *Phyllotoma wuestneii* KONOW, 1905, *Pontania bela* (ZADDACH, 1876), *Pontania vesicator* (BREMI-WOLF, 1849), *Tenthredo betuleti* KLUG, 1816, *Scolioneura vicina* (KONOW, 1894).

****Colastes (Xenarcha) lustrator* (HALIDAY, 1836)**

Rogas lustrator HALIDAY, 1836: 4.

Colastes CURTIS, 1837: 294.

Colastes (Xenarcha) lustrator; CURTIS 1837

Distribution in Turkey: Aksaray, Ardahan, Amasya, Bilecik, Bolu, Bursa, Erzurum, Kastamonu, Samsun, (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Belarus, Belgium, Bulgaria, Czechoslovakia, Denmark, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Lithuania, Moldova, Netherlands, Poland, Russia, Spain, Sweden, Switzerland, United Kingdom.

Hosts: **Hymenoptera, Tenthredinidae:** *Fenella nigrita* WESTWOOD, 1839, *Fenusa pumila* LEACH, 1817, *F. pusilla* (LEPELETIER, 1823), *F. (Kaliofenusa) ulmi* SUNDEVALL, 1844, *Metallus albipes* (CAMERON, 1875), *M. pumilus* (KLUG, 1816). **Lepidoptera, Coleophoridae:** *Coleophora* sp.

Genus *Dendrosoter* WESMAEL, 1838

****Dendrosoter (Caenopachys) hartigii* (RATZEBURG, 1848)**

Bracon (Eurybolus) hartigii RATZEBURG, 1848: 33.

Caenopachys hartigii; FOERSTER 1862: 239, FAHRINGER 1930: 129.

Dendrosoter hartigii (or *hartigi*); PICARD 1928, 50; SHENEFELT & MARSH 1976: 1271-1272; BELOKOBYSKIJ 1998: 66; PAPP 1984: 173; HEDQVIST 1998: 38-39. *Dendrosoter flaviventris* FOERSTER, 1878: 81; FAHRINGER 1930: 136; SHENEFELT & MARSH 1976: 1271; PAPP 1984: 173 (as synonym of *Dendrosoter hartigi*); BELOKOBYSKIJ & TOBIAS 1986: 39 (as separate species because of colour but lectotype is a bleached specimen).

Dendrosoter (Caenopachys) hartigii; TELENGA 1941: 5.

Distribution in Turkey: Bolu, Aladağ (MANCINI et al. 2003).

General distribution: Palaearctic. Algeria, Armenia, Austria, Belarus, Belgium, Bosnia Hercegovina, Bulgaria, Croatia, Czech Republic, Czechoslovakia, Finland, France, Germany, Hungary, Israel, Lithuania, Norway, Poland, Portugal, Russia, Slovakia, Spain, Sweden, Turkey, Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Scolytidae:** *Blastophagus minör* (HARTIG, 1834), *Ips cuminatus* (GYLLENHAL, 1827), *Orthotomicus erosus* (WOLLASTON, 185), *Pityogenes bidentatus* (HERBST, 1783), *P. bistridentatus* (EICHHOFF, 1878), *P. calcaratus* (EICHHOFF, 1878), *P. chalcographus* (LINNAEUS, 1761), *P. conjunctus* (REITER, 1887), *P. quadridens* (HARTIG, 1834), *P. trepanatus* (NÖRDLINGER, 1848), *Pityophthorus lichtensteini* (RATZEBURG, 1837), *Scolytus mali* (BECHSTEIN, 1805). **Curculionidae:** *Bostrichus bidens* FABRICIUS, 1792, *Carphoborus minimus* (FABRICIUS, 1798), *C. minimus* (FABRICIUS, 1798), *Ceutorhynchus quadridens* (PANZER, 1795), *Crypturgus cinereus* (HERBST, 1793), *Ernoporicus caucasicus* (LINDEMANN, 1876), *Lixus bidens* CAPIOMONT, 1874, *Polygraphus poligraphus* (KUGELANN, 1794). **Tenebrionidae:** *Corticeus linearis* FABRICIUS, 1790.

***Dendrosoter (Dendrosoter) middendorffii* (RATZEBURG, 1848)**

Bracon (Eurybolus) middendorffii RATZEBURG, 1848: 238.

Dendrosoter (Dendrosoter) middendorffii; BELOKOBYLSKIJ & MAETO 2009.

Distribution in Turkey: Turkey (SCHIMITSCHEK 1941; 1944).

General distribution: Palaearctic and Oriental. Austria, Belarus, Bulgaria, Czech Republic, Czechoslovakia, Finland, France, Georgia, Germany, Hungary, India, Israel, Italy, Japan, Latvia, Lithuania, Moldova, Poland, Russia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

Hosts: **Coleoptera, Curculionidae:** *Bostrichus bidens* FABRICIUS, 1792, *Hylurgops palliatus* (GYLLENHAL, 1813), *Hylurgus micklitzii* (WATCHL, 1881), *Magdalis (Magdalis) memnonia* (GYLLENHAL, 1837), *Pissodes notatus* FABRICIUS, 1787. *Polygraphus grandiclava* THOMSON, 1886, *P. poligraphus* (LINNAEUS, 1758), *Scolytus pygmaeus* (FABRICIUS, 1787), *S. scotylus* (FABRICIUS, 1775). **Scolytidae:** *Blastophagus minor* (HARTIG, 1834), *B. piniperda* (LINNAEUS, 1758), *Cryphalus iceae* (RATZEBURG, 1837), *Dendroctonus micans* (KUGELANN, 1794), *Hylastes destruens* (WOLLASTON, 1865), *Hylesinus fraxini* (PANZER, 1779), *Ips acuminatus* (GYLLENHAL, 1827), *I. amitinus* (EICHHOFF, 1872), *I. cembrae* (HEER, 1836), *I. duplicatus* (SAHLBERG, 1836), *I. mansfeldi* (WACHTL, 1879), *I. sexdentatus* (BORNER, 1767), *I. typographus* (LINNAEUS, 1758), *Orthotomicus erosus* (WOLLASTON, 185), *O. laricis* (FABRICIUS, 1792), *Pityogenes bidentatus* (HERBST, 1783), *P. bistridentatus* (EICHHOFF, 1878), *P. Chalcographus* (LINNAEUS, 1761), *Pityokteines curvidens* (GERMAR, 1824), *P. vorontzovi* (JACOBSON, 1895), *Trypodendron lineatum* (OLIVIER, 1795).

***Dendrosoter (Dendrosoter) protuberans* (NEES, 1834)**

Bracon protuberans NEES, 1834: 1.

Dendrosoter (Dendrosoter) protuberans; TELENGA, 1941: 5.

Distribution in Turkey: Turkey (SCHIMITSCHEK 1939, 1941; ZALDIVAR et al. 2008). Edirne, Erzincan, Sivas (BEYARSLAN 2015).

General distribution: Holarctic. Armenia, Austria, Azerbaijan, Croatia, Czech Republic, Czechoslovakia, Egypt, Finland, France, Georgia, Germany, Hungary, Israel, Italy, Latvia, Lithuania, Moldova, Netherlands, Poland, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, Turkmenistan, U.S.A. (California, Idaho, Michigan, Ohio), Ukraine, United Kingdom, Yugoslavia. Introduced into U.S.A. (Colorado, Delaware).

Hosts: **Coleoptera, Buprestidae:** *Agrilus sulcicollis* LACORDAIRE, 1835, *Anthaxia hackeri* FRIVALDSZKI, 1884. **Cerambycidae:** *Exocentrus lusitanus* (LINNAEUS, 1767), *Phymatodes testaceus* (LINNAEUS, 1758), *Pyrrhidium sanguineum* (LINNAEUS, 1758), *Stromatium fulvum* LINSLEY & CHEMSAK, 1997, *S. unicolor* (OLIVIER, 1795). **Chrysomelidae:** *Agelastica alni* (LINNAEUS, 1758). **Curculionidae:** *Dendroctonus minor* HARTIG, 1834, *Blastophagus piniperda* (LINNAEUS, 1758), *Ceutorhynchus quadridens* PANZER, 1795, *Chaetoptelius vestitus* (MULSANT & REY, 1860), *C. vestitus* FUCHS, 1913, *Dryocoetes villosus* (FABRICIUS, 1792), *D. villosus* (FABRICIUS, 1792), *Hylesinus crenatus* (FABRICIUS, 1787), *Bostrichus fraxini* PANZER, 1779, *B. suturalis* GYLLENHAL, 1827, *Hylesinus fraxini* (PANZER, 1779), *H. oleiperda* FABRICIUS, 1801, *Ips sexdentatus* (BORNER, 1767), *I. typographus* (LINNAEUS, 1758), *Leperisinus varius* (FABRICIUS, 1775), *Phloeosinus armatus* REITER, 1887, *P. aubei* (PERRIS, 1855), *P. bicolor* (BRULLÉ, 1832), *P. thujae* (PERRIS, 1855), *Phloeotribus scarabaeoides* (BERNARD, 1788), *Pityogenes bidentatus* (HERBST, 1784), *P. quadridens* (HÄRTIG, 1834), *Pteleobius kraatzi* (EICHHOFF, 1864), *Scolytus aceris* KNOTEK, 1892b, *Scolytus amygdali* GUERIN, 1847, *S. carpini* (RATZEBURG, 1837), *S. intricatus* (RATZEBURG, 1837), *S. kirschi* SKALITZKY, 1876, *S. koenigi* SCHEVYREW, 1890, *S. multistriatus* (MARSHAM, 1802), *S. pygmaeus* (FABRICIUS, 1787), *S. ratzeburgi* JANSON, 1856, *S. rugulosus* (MÜLLER, 1818), *S. scotylus* (FABRICIUS, 1775), *Xyleborus dispar* (FABRICIUS, 1792), *X. dryographus* (RATZEBURG, 1837).

Genus *Dendrosotinus* TELENGA, 1941

**Dendrosotinus ferrugineus* (MARSHALL, 1888)

Dendrosoter ferrugineus MARSHALL, 1888: 4.

Dendrosotinus ferrugineus; TELENGA 1941: 5.

Distribution in Turkey: Ardahan, Balıkesir, Bartın, Erzincan, Erzurum, Iğdır, Kars, Kayseri, Konya, Muğla (BEYARSLAN 2015).

General distribution: Western Palearctic. Armenia, Azerbaijan, Bosnia Hercegovina, France,

Greece, Israel, Italy, Russia, Spain, Yugoslavia.

Hosts: **Coleoptera, Cerambycidae:** *Scobicia chevrieri* (VILLA & VILLA, 1835), *Sinoxylon sexdentatum* (OLIVIER, 1790). **Curculionidae:** *Phloeotribus scarabaeoides* (BERNARD, 1788). **Scolytidae:** *Chaetoptelius vestitus* (MULSANT & REY, 1860).

Genus *Dolopsidea* HINCKS, 1944

**Dolopsidea indagator* (HALIDAY, 1836)

Rogas (Rhyssalus) indagator HALIDAY, 1836: 4.

Dolopsidea indagator; STELFOX 1951: 87.

Distribution in Turkey: Erzurum, Iğdır, Sivas (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Czechoslovakia, Finland, France, Germany, Hungary, Ireland, Italy, Korea, Lithuania, Russia, Sweden, Switzerland, Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Dorcatoma chrysomelina* STURM, 1837, *D. dresdensis* HERBST, 1792, **Cerambycidae:** *Pogonocherus hispidus* (LINNAEUS, 1758).

****Dolopsidea tatianae* (TELENGA, 1941)**

Doryctodes tatianae TELENGA, 1941

Dolopsidea tatianae; BELOKOBYSKIJ & TOBIAS 1986: 21-72.

Distribution in Turkey: Sivas (BEYARSLAN 2015)

General distribution: Western Palearctic. Hungary, Lithuania, Moldova, Russia.

Host: Unknown.

Genus *Doryctes* HALIDAY, 1836****Doryctes (Doryctes) leucogaster* (NEES, 1834)**

Bracon leucogaster NEES, 1834: 1.

Doryctes (Doryctes) leucogaster; REINHARD 1865: 243-267.

Distribution in Turkey: Adana, Amasya, Aydın (BEYARSLAN 2015).

General distribution: Oriental, Palearctic. Algeria, Armenia, Austria, Azerbaijan, Belgium, Bulgaria, China, Croatia, Czech Republic, Czechoslovakia, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Latvia, Lithuania, Macedonia, Moldova, Netherlands, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Ukraine, United Kingdom, Uzbekistan, Yugoslavia, Yugoslavia-Montenegro, Yugoslavia-Serbia.

Hosts: **Coleoptera, Anobiidae:** *Coelostethus pertinax* LECONTE, 1861, *Anobium punctatum* (DE GEER, 1774), *Anthaxia* sp. **Bostrichidae:** *Bostrichus capucinus* (LINNAEUS, 1758). **Buprestidae:** *Agrilus (Anambus) biguttatus* (FABRICIUS, 1777); *Buprestis aurulenta* LINNAEUS, 1767 (syn. *Anthaxia aurulenta*), *Anthaxia (Anthaxia) manca* (LINNAEUS, 1767); *Lampra mirifica* Kraatz, 1880. **Cerambycidae:** *Acanthocinus aedilis* (LINNAEUS, 1758), *Acanthoderes cinereus* FABRICIUS, *Chlorophorus pilosus* (FOERSTER, 1771); *Chrysobothris salieri* CASTELNAU & GORY, 1893, *Exocentrus lusitanus* LINNAEUS 1767, *Hesperophanes cinereus* AURIVILLIUS, 1912, *Hylotrupes bajulus* (LINNAEUS, 1758), *Penichroa fasciata* (STEPHENS, 1831), *Phymatodes testaceus* (LINNAEUS, 1758), *Plagionotus arcuatus* (LINNAEUS, 1758), *Rhagium (Hagrium) bifasciatum* FABRICIUS, 1775, *Rhagium (Rhagium) inquisitor* (LINNAEUS, 1758), *Rhagium mordax* (DE GEER, 1775); *Tetropium castaneum* (LINNAEUS, 1758). **Chrysomelidae:** *Agelastica alni* (LINNAEUS, 1758). **Crambidae:** *Loxostege sticticalis* (LINNAEUS, 1761). **Lepidoptera, Lymantriidae:** *Lymantria dispar* LINNAEUS, 1758. **Aranaea: Theridiidae:** *Opilo domesticus* (STURM, 1837).

****Doryctes (Doryctes) molorchi* FISCHER, 1971**

Distribution in Turkey: Eskişehir (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Georgia, Russia.

Host: **Coleoptera, Cerambycidae:** *Molorchus umbellatarum* (SCHREBER, 1759).

****Doryctes (Doryctes) striatellus* (NEES, 1834)**

Bracon striatellus NEES, 1834

Doryctes (Doryctes) striatellus; BELOKOBYSKIJ & MAETO 2009: 1.

Distribution in Turkey: Elazığ (BEYARSLAN 2015).

General distribution: Palearctic. Austria, Belgium, Bulgaria, Czech Republic,

Czechoslovakia, Finland, France, Germany, Hungary, Italy, Japan, Lithuania, Poland, Russia, Sweden, Switzerland, Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Anobium abietis* (FABRICIUS, 1792); *Dorcatoma dresdensis* HERBST, 1792, *Ernobius mollis* (LINNAEUS, 1758). **Buprestidae:** *Anthaxia tuerki* GANGLBAUER, 1886; *Agrilus biguttatus* (FABRICIUS, 1777). **Cerambycidae:** *Callidium violaceum* (LINNAEUS, 1758), *C. abdominale* (OLIVIER, 1795), *Obrium brunneum* (FABRICIUS, 1792), *Pogonocherus hispidus* (LINNAEUS, 1758), *Pyrrhidium sanguineum* (LINNAEUS, 1758), *Saperda similis* (LAICHARTING, 1784), *Tetropium castaneum* (LINNAEUS, 1758). **Curculionidae:** *Hylurgus ligniperda* (FABRICIUS, 1787), *Magdalis (Magdalis) violacea* (LINNAEUS, 1758), *M. rufa* GERMAR, 1824, *Pissodes notatus* FABRICIUS, 1787. **Scolytidae:** *Hylurgops palliatus* (GYLLENHAL, 1813), *Ips typographus* (LINNAEUS, 1758), *S. ratzeburgi* JANSON, 1856, *Tetropium fuscum* (FABRICIUS, 1787), *T. gabrieli* WEISE, 1905. **Hymenoptera, Xiphidriidae:** *Xiphidria camelus* (LINNAEUS, 1758), *Xiphidria prolongata* (GEOFFROY, 1785). **Lepidoptera, Tortricidae:** *Cydia pomonella* (LINNAEUS, 1758).

****Doryctes (Doryctes) undulatus* (RATZEBURG, 1852)**

Braon undulatus RATZEBURG, 1852: 272.

Doryctes (Doryctes) undulatus; BELOKOBYSKIJ & MAETO 2009: 1.

Distribution in Turkey: Gümüşhane (BEYARSLAN 2015)

General distribution: Palearctic. Bulgaria, Czechoslovakia, France, Germany, Hungary, Italy, Japan, Kazakhstan, Korea, Lithuania, Moldova, Mongolia, Poland, Russia, Slovakia, Sweden, Switzerland, United Kingdom.

Hosts: **Coleoptera, Buprestidae:** *Agrilus convexicollis* REDTENBACHER, 1849; *A. cuprescens* (MÉNÉTRIÉS, 1832); *A. mendax* (MANNERHEIM, 1837); *A. viridis* (LINNAEUS, 1758); *Anthaxia tuerki* GANGLBAUER, 1886; *Axinopalpis gracilis* (KRYNICKI, 1832); *Grammoptera ruficornis* (FABRICIUS, 1781); *Magdalis armigera* (FOURCROY, 1785); *M. ruficornis* (LINNAEUS, 1758). **Cerambycidae:** *Molochus umbellatarum* (SCHREBER, 1759); *M. kiesenwetteri* (MULSANT & REY, 1861), *Pogonocherus decoratus* FAIRMAIRE, 1855; *P. fasciculatus* (DE GEER, 1775); *P. hispidulus* (PILLER & MITTERPACHER, 1783); *P. hispidus* (LINNAEUS, 1758); *Tetrops praeustus* (LINNAEUS, 1758). **Scolytinae:** *Pityogenes bidentatus* (HERBST, 1783).

Genus *E c p h y l u s* FOERSTER, 1862

***Ecpstylus (Ecpstylus) silesiacus* (RATZEBURG, 1848)**

Bracon silesiacus RATZEBURG, 1848.

Ecpstylus (Ecpstylus) silesiacus; BELOKOBYSKIJ & MAETO 2009: 1.

Distribution in Turkey: Balıkesir, Elazığ, Tekirdağ, Ankara, Malatya (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Austria, Belarus, Bulgaria, Croatia, Czech Republic,

Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Iran, Israel, Italy, Kazakhstan, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, Spain,

Hosts: **Coleoptera, Bostrichidae:** *Bostrichus laricis* FABRICIUS, 1792. **Curculionidae:** *Blastophagus minor* (HARTIG, 1834), *Bostrichus binodulus* RATZEBURG, 1837, *Carphoborus minimus* (FABRICIUS, 1798), *Ceutorhynchus pallidactylus* (MARSHAM, 1802), *C. quadridens* PANZER, 1795, *Chaetoptelius vestitus* (MULSANT & REY, 1860), *Cryphalus abietis* (RATZEBURG, 1837), *Ernoporus tilliae* (PANZER, 1793), *Tomicus minor* (HARTIG, 1834), *Trypophloeus asperatus*

asperatus (GYLLENHAL, 1813), *Cryphalus binodulus* (RATZEBURG, 1837), *C. piceae* (RATZEBURG, 1837), *C. cinereus* (HERBST, 1793), *Dryocoetes alni* (GEORG, 1856), *D. villosus* (FABRICIUS, 1792), *Ernoporicus fagi* (FABRICIUS, 1798), *Hylesinus crenatus* (FABRICIUS, 1787), *H. fraxini* (PANZER, 1779), *H. spartii* NOERDLINGER, 1847, *Ips acuminatus* (GYLLENHAL, 1827), *I. Typographus* (LINNAEUS, 1758), *Liparthrum colchicum* SEMENOV, 1903, *Magdalis* (*Odontomagdalis*) *armigera* (GEOFFROY, 1785), *M. (Porrothus) cerasi* (LINNAEUS, 1758), *M. (Edo) ruficornis* (LINNAEUS, 1758), *Miarus graminis* (GYLLENHAL, 1813), *Orthotomicus laricis* (FABRICIUS, 1792), *Phloeotribus caucasicus* REITER, 1891, *P. hercegovinensis* (SEITNER, 1920), *P. rhododactylus rhododactylus* (MARSHAM, 1802), *P. scarabaeoides* (BERNARD, 1788), *P. spinulosus* (REY, 1883). Scolytinae: *Pityogenes bidentatus* (HERBST, 1784), *P. bistridentatus* (EICHHOFF, 1878), *P. calcaratus* (EICHHOFF, 1878), *P. Chalcographus* (LINNAEUS, 1761), *P. Quadridens* (HARTIG, 1834), *P. spinidens* (REITER, 1894), *P. vorontzovi* (JACOBSON, 1895), *Pityophthorus micrographus* (LINNAEUS, 1758), *P. pityographus* (RATZEBURG, 1837), *Polygraphus poligraphus* (LINNAEUS, 1758), *P. subopacus* THOMSON, 1871, *Pteleobius kraatzi* (EICHHOFF, 1864), *P. vittatus* (FABRICIUS, 1787), *Scolytus* sp., *S. carpinii* (RATZEBURG, 1837), *S. ensifer* EICHHOFF, 1881, *S. intricatus* (RATZEBURG, 1837), *S. kirschi* SKALITZKY, 1876, *S. laevis* CHAPUIS, 1869, *S. Mali* (BECHSTEIN, 1805), *S. multistriatus* (MARSHAM, 1802), *S. pygmaeus* (FABRICIUS, 1787), *S. rugulosus* (MÜLLER, 1818), *S. scolytus* (FABRICIUS, 1775). **Curculionidae:** *Trypodendron domesticum* (LINNAEUS, 1758), *Trypophloeus asperatus asperatus* (GYLLENHAL, 1813), *Xyleborinus saxeseni* (RATZEBURG, 1837), *X. pilosus* (SCOPOLI, 1763).

Genus *Hecabalodes* WILKINSON, 1929

Hecabalodes radialis TOBIAS, 1962

Distribution in Turkey: Ankara, Aydın, Adana, Edirne, Elazığ, Erzincan, Eskişehir, Iğdır, Karabük, Malatya, Mardin, Muğla, Nevşehir, Samsun, Sinop, Tekirdağ, Çanakkale, Yozgat (BEYARSLAN 2015).

General distribution: Palearctic, Oriental. Greece, India, Tajikistan, Turkmenistan.

Hosts: **Coleoptera, Buprestidae:** *Acmaeodera* sp., *Acmaeoderella glasunovi* (SEMENOV, 1895), *Anthaxia* sp., *Anthaxia judinae* STEPANOV, 1954, *Magdalis egregia* FAUST, 1885, *M. myochroa* REICHARDT, 1928, *Scolytus gretschkini* SOKANOVSKII, 1956, *Turanium scabrum* (KRAATZ, 1882).

Genus *Hellenius* TOBIAS, 1982

**Hellenius (Hellenius) semiruber* (HELLÉN, 1958)

Diospilus semiruber HELLÉN, 1958: 4.

Hellenius (Hellenius) semiruber; TOBIAS 1982: 61.

Distribution in Turkey: Sivas (BEYARSLAN 2015).

General distribution: Western Palearctic. Finland.

Host: Unknown.

Genus *Heterospilus* HALIDAY, 1836

Heterospilus (Heterospilus) cephi ROHWER, 1925

Heterospilus cephi ROHWER, 1925: 15.

Heterospilus (Heterospilus) cephi; BELOKOBYSKIJ & MAETO 2009.

Distribution in Turkey: Ankara, Aydın, Edirne, Elazığ, Eskişehir, Gümüşhane, İstanbul, Malatya, Muğla, Tekirdağ (BEYARSLAN 2015).

General distribution: Holarctic. Armenia, Austria, Bulgaria, Czechoslovakia, France, Germany, Greece, Hungary, Israel, Italy, Japan, Kazakhstan, Korea, Moldova, Mongolia, Russia, Spain, Tunisia, Turkmenistan, U.S.A. (New York, Pennsylvania), Yugoslavia. Introduced into Canada-Alberta, United Kingdom.

Hosts: **Hymenoptera, Cephidae:** *Cephus pygmeus* KNOTEK, 1803, *Trachelus tabidus* (FABRICIUS, 1775).

****Heterospilus (Heterospilus) genalis* TOBIAS, 1976**

Heterospilus genalis TOBIAS, 1976: 110.

Heterospilus (Heterospilus) genalis; BELOKOBYLSKIJ 1983: 65.

Distribution in Turkey: Malatya (BEYARSLAN 2015).

General distribution: Western Palearctic. Azerbaijan, Hungary.

Host: Unknown.

*****Heterospilus (Heterospilus) hemipterus* (THOMSON, 1892)**

Eurybolus hemipterus THOMSON, 1892: 17.

Heterospilus (Heterospilus) hemipterus; ZÉPLIGETI 1904: 22.

Distribution in Turkey: Tekirdağ (BEYARSLAN 2015).

General distribution: Palearctic. Austria, Germany, Iran, Mongolia, Slovenia, Sweden, Yugoslavia.

Host: Unknown.

****Heterospilus (Heterospilus) leptosoma* FISCHER, 1960**

Heterospilus leptosoma FISCHER, 1960: 30.

Heterospilus (Heterospilus) leptosoma, BELOKOBYLSKIJ & MAETO 2009: 1

Distribution in Turkey: Adapazarı, Antalya, İstanbul, Karabük, (BEYARSLAN 2015).

General distribution: Oriental, Palearctic. Austria, Bulgaria, China, Croatia, Czechoslovakia, Greece, Hungary, Japan, Kazakhstan, Korea, Moldova, Mongolia, Yugoslavia.

Host: Unknown.

***Heterospilus (Heterospilus) rubicola* FISCHER, 1968**

Heterospilus rubicola FISCHER, 1968: 37.

Heterospilus (Heterospilus) rubicola; SHENEFELT & MARSH 1976: 13.

Distribution in Turkey: Artvin, Bartın, Bilecik, Gümüşhane, Kırklareli (BEYARSLAN 2015).

General distribution: Palearctic. Bulgaria, Georgia, Germany, Hungary, Kazakhstan, Korea, Moldova, Russia, Uzbekistan, Yugoslavia.

Host: Unknown.

****Heterospilus (Heterospilus) tadzhicus* BELOKOBYLSKIJ, 1983***Heterospilus tadzhicus* BELOKOBYLSKIJ, 1983: 65.*Heterospilus (Heterospilus) tadzhicus*; BELOKOBYLSKIJ & TOBIAS 1986: 145.

Distribution in Turkey: Siirt Zonguldak, (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Tajikistan.

Host: Unknown.

Heterospilus (Heterospilus) tauricus* TELENGA, 1941Heterospilus tauricus* TELENGA, 1941: 5.*Heterospilus (Heterospilus) tauricus*; BELOKOBYLSKIJ & MAETO 2009: 1.

Distribution in Turkey: Adana, Adapazarı, Ankara, Aydın, Adanan, Bartın, Edirne, Elazığ, Erzincan, Karabük, Kastamonu, Kırklareli, Muğla, Nevşehir, Samsun, Sinop, Sivas, Tekirdağ, Tokat, Zonguldak (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Azerbaijan, France, Germany, Italy, Japan, Kazakhstan, Korea, Lithuania, Moldova, Russia, Ukraine, Yugoslavia.

Host: **Coleoptera, Mordellidae: *Mordellistena (Mordellistena) pentas*** MULSANT, 1856.**Genus *Hormius* NEES, 1819*****Hormius moniliatus* (NEES, 1811)***Bracon moniliatus* NEES, 1811: 5.*Hormius moniliatus*; CURTIS 1837: 294.

Distribution in Turkey: Adıyaman, Aksaray, Amasya, Ankara, Ardahan, Artvin, Aydın, Balıkesir, Bartın, Bilecik, Çanakkale, Çankırı, Denizli, Diyarbakır, Düzce, Edirne, Elazığ, Erzincan, Erzurum, Iğdır, Isparta, İzmit, Karabük, Kars, Kayseri, Kırklareli, Kırşehir, Konya Kütahya, Malatya, Muğla, Nevşehir Ordu, Siirt, Sivas, Tokat, Tunceli, Yozgat BEYARSLAN 2015).

General distribution: Holarctic, Nearctic, Oceanic, Oriental. Afghanistan, Armenia, Azerbaijan, Belarus, Belgium, Bulgaria, Canary Islands, Cape Verde Islands, China, Czech Republic, Czechoslovakia, Finland, France, Germany, Greece, Greenland, Hungary, Iran, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Macedonia, Moldova, Mongolia, Morocco, Netherlands, Norway, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Tajikistan, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Vietnam, Yugoslavia.

Hosts: **Lepidoptera, Crambidae: *Achyra nudalis*** (HÜBNER, 1796), *Hellula undalis* (FABRICIUS, 1781), *Paratalanta hyalinalis* (HÜBNER, 1796), *Pyrausta aurata* (SCOPOLI, 1763), *P. purpuralis* (LINNAEUS, 1758), *P. sanguinalis* (LINNAEUS, 1767). **Coleophoridae: *Coleophora trifariella*** (ZELLER, 1849). **Elachistidae: *Agonopterix assimilella*** (TREITSCHKE, 1832). **Gelechiidae: *Dichomeris marginella*** (FABRICIUS, 1781). **Oecophoridae: *Agonopterix adpersella*** (KOLLAR, 1832), *Depressaria pulcherrimella* (STANTON, 1849), *Pexicopia malvella* (HÜBNER, 1805). **Scythrididae: *Scythris inspersella*** (HÜBNER, 1817). **Tortricidae: *Archips crataegana*** (HÜBNER, 1799). **Tortricidae: *Pandemis corylana*** (FABRICIUS, 1794).

***Hormius propodealis* (BELOKOBYSKIJ, 1989)**

Anhormius propodealis BELOKOBYSKIJ, 1989

Hormius propodealis; ACHTERBERG 1995: 1-242.

Distribution in Turkey: (BELOKOBYSKIJI 2001).

General distribution: Australasian, Western Palearctic. Australia, Turkey.

Host: Unknown.

***Hormius similis* SZÉPLIGETI, 1896**

Distribution in Turkey: Adana, Amasya, Balıkesir, Kırklareli, Tokat (BEYARSLAN 2015).

General distribution: Oriental, Palearctic. Azerbaijan, Bulgaria, China, Croatia, Czech Republic, Czechoslovakia, Germany, Greece, Hungary, Iran, Japan, Kazakhstan, Korea, Macedonia, Mongolia, Russia, Yugoslavia.

Host: Unknown.

Genus *Leluthia* CAMERON, 1887****Leluthia (Euhecabolodes) asiatica* (TOBIAS, 1980)**

Euhecabolodes asiaticus TOBIAS, 1980: 7.

Leluthia (Euhecabolodes) asiatica, BELOKOBYSKIJ & MAETÔ 2006: 56.

Distribution in Turkey: Mardin (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Kazakhstan, Mongolia.

Host: **Coleoptera, Curculionidae**: *Scolytus chevyrewi* SEMENOV, 1902.

****Leluthia (Euhecabolodes) ruguloscolyti* (FISCHER, 1962)**

Hecabalodes ruguloscolyti FISCHER, 1962: 49.

Leluthia (Euhecabolodes) ruguloscolyti, BELOKOBYSKIJI 1998, 2.

Distribution in Turkey: Ankara, Diyarbakır, Elazığ, Diyarbakır, Malatya (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Iran, Tajikistan, Turkmenistan.

Hosts: **Coleoptera, Curculionidae**: *Phloeosinus bicolor* (BRULLÉ, 1832), *Scolytus rugulosus* (MÜLLER, 1818).

****Leluthia (Euhecabolodes) transcaucasica* (TOBIAS, 1976)**

Euhecabolodes transcausicus TOBIAS, 1976: 110.

Leluthia (Euhecabolodes) transcaucasica; BELOKOBYSKIJI 1998, 2.

Distribution in Turkey: Siirt (BEYARSLAN 2015).

General distribution: Palearctic. Czechoslovakia, Georgia, Kazakhstan, Mongolia, Russia.

Hosts: **Coleoptera, Curculionidae**: *Phloeosinus bicolor* (BRULLÉ, 1832), *Scolytus butovitschi* EGGERS, 1942, *S. japonicus* CHAPIUS, 1869.

****Leluthia (Leluthia) paradoxa* (PICARD, 1938)**

Doryctosoma paradoxum PICARD, 1938: 63.

Leluthia (Leluthia) paradoxa, BELOKOBYLSKIJ & ŽIKIĆ 2009: 65-71.

Distribution in Turkey: Tokat (BEYARSLAN 2015).

General distribution: Western Palearctic. Algeria, France, Hungary, Italy, Macedonia, Spain, Tunisia, Yugoslavia.

Hosts: **Coleoptera, Curculionidae:** *Pissodes piceae* (ILLIGER, 1807), *Trypodendron signatum* (FABRICIUS, 1787). Scolytidae: *Scolytus multistriatus* (MARSHAM, 1802).

Genus *Oncophanes* FOERSTER, 1862***Oncophanes (Oncophanes) minutus* (WESMAEL, 1838)**

Exotheus minutus WESMAEL, 1838: 11.

Oncophanes (Oncophanes) minutus; BELOKOBYLSKIJ 2004: 75

Distribution in Turkey: Artvin, Bolu, İstanbul, Kırklareli, Samsun (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Moldova, Mongolia, Netherlands, Poland, Romania, Russia.

Hosts: **Hymenoptera, Tenthredinidae:** *Pontania (Eupontania) pedunculi* (HARTIG, 1837), *Pontania vesicator* (BREMI-WOLF, 1849), *Pontania viminalis* (LINNAEUS, 1758). **Coleoptera, Bostrichidae:** *Bostrichus* sp. **Cerambycidae,** *Leiopus* sp., *Pogonocherus* sp. **Lepidoptera, Blastodacnidae:** *Blastodacna atra*. (HAWORTH, 1828). **Choreutidae:** *Choreutis pariana* (CLERCK, 1759), *Prochoreutis ehestediana* (FABRICIUS, 1777). **Coleophoridae,** *Coleophora laricella* (HÜBNER [1817]). **Depressariidae,** *Agonoapterix nervosa* (HAWORTH, 1811). **Gelechiidae:** *Recurvaria leucateella* (CLERCK, 1759), *Scrobipalpa acuminatella* (SIRCOM, 1850), *Teleiodes luculellus* (HÜBNER 1813), *Teleiodes saltuum* (ZELLER 1878). **Geometridae,** *Operophtera brumata* (LINNAEUS, 1758). **Gracillariidae:** *Acrocercops brongiardella* (FABRICIUS, 1798), *Calybites phasianipennellus* (HÜBNER, 1813), *Phyllonorycter fragilella* (FREY & BOLL, 1878). **Lymantriidae:** *Euproctis chrysorrhoea* (LINNAEUS, 1758), *Lymantria dispar* (LINNAEUS, 1758). **Nepticulidae:** *Stigmella microtheriella* (STANTON, 1854). **Oecophoridae:** *Carcina quercana* (FABRICIUS, 1775), *Palpula daphnella* (DENIS & SCHIFFERMÜLLER, 1775). **Pterophoridae:** *Cnaemidophorus rhododactylus* (DENIS & SCHIFFERMÜLLER, 1775). **Tortricidae:** *Acleris forsskaeana* (LINNAEUS, 1758), *Acleris rhombana* ([DENIS & SCHIFFERMÜLLER], 1775). *Acleris variegana* ([DENIS & SCHIFFERMÜLLER], 1775), *Adoxophyes orana* FISCHER von ROSLERSTAMM, 1834), *Ancylis mitterbacheriana*. ([DENIS & SCHIFFERMÜLLER], 1775), *Ancylis selenana* (GUENÉE, 1845), *Ancylis tineana*. (HÜBNER [1799]), *Archips rosana* (LINNAEUS, 1758) *Archips xylosteanana* (LINNAEUS, 1758), *Celypha lacunana* (DENIS & SCHIFFERMÜLLER, 1775), *Choristoneura hebenstreitella* (MÜLLER, 1764), *Choristoneura murinana* (HÜBNER, 1799), *Cydia laricana* (BUSCK, 1916), *Dichelia histrionana* (FRÖLICH, 1828), *Eucoasma aspidiscana* (HÜBNER, 1817), *Eudemis porphyra* (HÜBNER, [1799]), *Eudemis profundana* (DENIS & SCHIFFERMÜLLER, 1775), *Hedya dimioalba* RETZIUS, 1783, *Hedya nubiferana* (HAWORTH, 1811), *Hedya pruniana* (HÜBNER, [1799]), *Pandemis cerasana* (HÜBNER, 1786), *Pandemis heparana*. ([DENIS & SCHIFFERMÜLLER], 1775), *Ptycholoma lecheana*. (LINNAEUS, 1758), *Rhopobota naevana*. (HÜBNER [1817]), *Rhyacionia buoliana* ([DENIS & SCHIFFERMÜLLER], 1775), *Spilionota ocellana* ([DENIS & SCHIFFERMÜLLER], 1775), *Tortrix viridana* LINNAEUS, 1758, *Zeiraphera griseana*. (HÜBNER [1799]), *Zeiraphera isertana*. (FABRICIUS, 1794). **Yponomeutidae:** *Swammerdamia pyrella* (VILLERS, 1789), *Yponomeuta malinella* ZELLER, 1838.

Genus *Ontsira* CAMERON, 1900****Ontsira antica* (WOLLASTON, 1858)**

Clinocentrus anticus WOLLASTON, 1858: 3.

Ontsira antica; MARSH 1973: 63.

Distribution in Turkey: Artvin, Edirne, Erzurum (BEYARSLAN 2015).

General distribution: Holarctic, Oceanic. Azerbaijan, Croatia, Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Italy, Lithuania, Madeira Islands, Moldova, New Zealand, Romania, Russia, Spain, Sweden, Switzerland, U.S.A. (Connecticut, District of Columbia, Massachusetts, New Hampshire, New York, West Virginia), Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Ptilinus pectinicornis* (LINNAEUS, 1758). **Buprestidae:** *Agrilus viridis* (LINNAEUS, 1758), *Chrysobothris* (*Chrysobothris*) *igniventris* REITER, 1895.

Cerambycidae: *Clytus arietis* (LINNAEUS, 1758), *Ernobius mollis* (LINNAEUS, 1758), *Exocentrus punctipennis* MULSANT & GUILLEBEAU, 1856, *Phymatodes testaceus* (LINNAEUS, 1758), *Plagionotus arcuatus* (LINNAEUS, 1758), *Plagionotus floralis* (PALLAS, 1773), *Pogonocherus hispidulus* (PILLER & MITTERPACHER, 1783), *Pyrrhidium sanguineum* (LINNAEUS, 1758).

Curculionidae: *Blastophagus piniperda* (LINNAEUS, 1758), *Magdalis* (*Magdalis*) *frontalis* (GYLLENHAL, 1827). **Eucnemidae:** *Melasis buprestoides* (LINNAEUS, 1761). **Scolytinae:** *Ips acuminatus* (GYLLENHAL, 1827), *Scolytus pygmaeus* (FABRICIUS, 1787), *S. rugulosus* (MÜLLER, 1818).

***Ontsira imperator* (HALIDAY, 1836)**

Rogas (*Doryctes*) *imperator* HALIDAY, 1836: 4.

Ontsira imperator; MARSH 1973: 63.

Distribution in Turkey: Bolu, Isparta, Kastamonu, Kırklareli, Nevşehir (BEYARSLAN 2015).

General distribution: Holarctic, Oriental. Azerbaijan, Belgium, Bulgaria, Canada, Canary Islands, China, Croatia, Czech Republic, Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Iran, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Netherlands, Poland, Russia, Slovakia, Sweden, Switzerland, U.S.A. (California, District of Columbia, Idaho, Kansas, Maryland, Michigan, Missouri, Nevada, New Hampshire, New York, Oregon, Virginia, Wisconsin, Wyoming), Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Buprestidae:** *Buprestis strigosa* (GEBLER, 1830). **Bostrichidae:** *Bostrichus capucinus* (LINNAEUS, 1758). **Depressariidae:** *Dicerea berlinensis* (HERBST, 1779).

Cerambycidae: *Acanthocinus aedilis* (LINNAEUS, 1758), *A. griseus* (FABRICIUS, 1792), *Anisarthron barbipes* (SCHRANK, 1781), *Hylotrupes bajulus* (LINNAEUS, 1758), *Leiopus nebulosus* (LINNAEUS, 1758), *Leptura rubra* (LINNAEUS, 1758), *Pogonocherus hispidus* (LINNAEUS, 1758), *P. fasciculatus* (De GEER, 1775), *Rhagium bifasciatum* (FABRICIUS 1775), *Scotylus scotylus* (FABRICIUS, 1775), *Stromatium fulvum* (LINSLEY & CHEMSAK, 1997), *Tetropium castaneum* (LINNAEUS, 1758). **Curculionidae:** *Blastophagus piniperda* (LINNAEUS, 1758). **Scolitidae:** *Blastophagus minor* (HARTIG, 1834).

Genus *Pachystigmus* HELLÉN, 1927****Pachystigmus nitidulus* HELLÉN, 1927**

Distribution in Turkey: Aksara, Eskişehir, Malatya (BEYARSLAN 2015).

General distribution: Western Palearctic. Finland and Spain.

Host: Unknown.

Genus *Pambolus* HALIDAY, 1836

***Pambolus (Phaenodus) pallipes* (FOERSTER, 1862)**

Phaenodus pallipes FOERSTER, 1862: 19.

Pambolus (Phaenodus) pallipes; BELOKOBYLSKIJ & TOBIAS 1986: 4.

Distribution in Turkey: Turkey (BELOKOBYLSKIJ 1986); Nevşehir, Rize (BEYARSLAN 2015).

General distribution: Palearctic. Bulgaria, Czech Republic, Czechoslovakia, Finland, Germany, Hungary, Iran, Japan, Kazakhstan, Korea, Lithuania, Moldova, Russia, Spain, Sweden, Tajikistan, Turkey, Ukraine, United Kingdom, Yugoslavia.

Host: Unknown.

Genus *Polystenus* FOERSTER, 1862

****Polystenus rugosus* FOERSTER, 1862**

Distribution in Turkey: Nevşehir (BEYARSLAN 2015).

General distribution: Palearctic, Oriental. Austria, China, Czech Republic, Czechoslovakia, Germany, Hungary, Italy, Japan, Kazakhstan, Korea, Liechtenstein, Poland, Russia, Slovakia, Switzerland, Tajikistan, Ukraine, Yugoslavia.

Hosts: **Coleoptera, Buprestidae:** *Agrilus* sp., *Agrilus angustulus* (ILLIGER, 1803), *A. auricollis* (KIESENWETTER, 1857), *A. sulcicollis* LACORDAIRE, 1835, *A. viridis* (LINNAEUS, 1758), *Anthaxia manca* (LINNAEUS, 1767), *Coraebus florentinus* (HERBST, 1801).

Genus *Pseudohormius* TOBIAS & ALEXEEV, 1973

****Pseudohormius turkmenus* TOBIAS & ALEXEEV, 1973**

Distribution in Turkey: Elazığ, Erzincan, Eskişehir, Kars, Kayseri, Malatya, Sivas, Tunceli, Yozgat (BEYARSLAN 2015).

General distribution: Palearctic. Russia, Tajikistan, Turkmenistan.

Host: **Lepidoptera, Buccalatricidae:** *Bucculatrix crataegi* ZELLER, 1839.

Genus *Rhaconotus* RUTHE, 1854

***Rhaconotus (Rhaconotus) asiaticus* BELOKOBYLSKIJ, 1990**

Rhaconotus asiaticus BELOKOBYLSKIJ, 1990: 15.

Rhaconotus (Rhaconotus) asiaticus; PAPP 1991: 19.

Distribution in Turkey: Afyon, Amasya, Ankara, Antakya, Artvin, Aydın, Bartın, Bayburt, Denizli, Diyarbakır, Edirne, Erzincan, Erzurum, Eskişehir, Kastamonu, Kayseri, Malatya, Nevşehir, Sinop, Sivas (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Azerbaijan, China, Czech Republic, Czechoslovakia, France, Germany, Hungary, Israel, Italy, Kazakhstan, Korea, Kyrgyzstan, Moldova, Mongolia, Russia, Spain, Tajikistan, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Yugoslavia.

Host: **Coleoptera, Curcurioniae:** *Lixus (Eulixus) kiritshenkoi* TER-MINASYAN, 1985.

***Rhaconotus (Rhaconotus) aciculatus* RUTHE, 1854)**

Rhaconotus aciculatus RUTHE 1854: 15.

Rhaconotus (Rhaconotus) aciculatus; PAPP 1991: 19.

Distribution in Turkey: Amasya, Ankara, Diyarbakır, Edirne, Erzincan, Erzurum, Iğdır, Malatya, Muğla, Sivas, Tekirdağ (BEYARSLAN 2015).

General distribution: Palearctic, Oriental. Azerbaijan, China, Czech Republic, Czechoslovakia, France, Germany, Hungary, Israel, Italy, Kazakhstan, Korea, Kyrgyzstan, Moldova, Mongolia, Russia, Slovakia, Spain, Tajikistan, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Yugoslavia.

Hosts: **Coleoptera, Buprestidae:** *Agrilus viridis* (LINNAEUS, 1758), *Anthaxia Igockii* OBENBERGER, 1917, *Caryedon* sp. **Chrysomelidae:** *Caryedon serratus* (OLIVIER, 1790), *Lixus glaucopterus lukjanovitschi* PUTSCHKOV, 1975.

****Rhaconotus (Rhaconotus) elegans* (FOERSTER, 1862)**

Hedysomus elegans FOERSTER, 1862: 19.

Rhaconotus (Rhaconotus) elegans; SHENEFELT & MARSH 1976: 1337.

Distribution in Turkey: Ankara (BEYARSLAN 2015).

General distribution: Palearctic. Georgia, Germany, Hungary, Kazakhstan, Poland, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

Host: Unknown.

****Rhaconotus (Rhaconotus) kerzhneri* BELOKOBYSKIJ, 1985**

Rhaconotus kerzhneri BELOKOBYSKIJ, 1985: 64.

Rhaconotus (Rhaconotus) kerzhneri; BELOKOBYSKIJ & TOBIAS 1986: 4.

Distribution in Turkey: Antakya, İçel (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Kazakhstan, Turkmenistan, Uzbekistan.

Host: Unknown.

***Rhaconotus (Rhaconotus) longulus* BELOKOBYSKIJ, 1994**

Rhaconotus longulus BELOKOBYSKIJ, 1994: 73.

Rhaconotus (Rhaconotus) longulus; BELOKOBYSKIJ & TOBIAS 1986: 4.

Distribution in Turkey: Bozcaada, Çanakkale, Iğdır, Tekirdağ (BEYARSLAN 2015).

General distribution: Eastern Palearctic. Russia.

Host: Unknown.

****Rhaconotus (Rhaconotus) pictipennis* (REINHARD, 1885)**

Hormiopterus pictipennis REINHARD 1885: 34.

Rhaconotus (Rhaconotus) pictipennis; PAPP 1991: 167.

Distribution in Turkey: Balıkesir, Bartın, Elazığ, Kastamonu, Tunceli, Zonguldak (BEYARSLAN, 2015).

General distribution: Palearctic. Azerbaijan, Germany, Greece, Hungary, Kazakhstan, Korea, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Ukraine.

Hosts: Unknown.

Genus *Rhoprocentrus* MARSHALL, 1897

***Rhoprocentrus piceus* MARSHALL, 1897**

Distribution in Turkey: Amasya, Edirne (BEYARSLAN 2015).

General distribution: Holarctic. Armenia, Austria, Bulgaria, Croatia, Czechoslovakia, Germany, Greece, Hungary, Iran, Israel, Italy, Japan, Moldova, Poland, Russia, Slovakia, Spain, Sweden, Turkmenistan, U.S.A. (District of Columbia, Maryland, Missouri, North Carolina, Pennsylvania, Virginia, West Virginia), Ukraine, Yugoslavia.

Hosts: Unknown.

Genus *Rhysipolis* FOERSTER, 1862

***Rhysipolis decorator* (HALIDAY, 1836)**

Rogas decorator HALIDAY, 1836: 4.

Rhysipolis decorator; ABDINBEKOVA 1969: 49.

Distribution in Turkey: Afyon, Aksaray, Amasya, Ankara, Ardahan, Artvin, Bayburt, Çankırı, Denizli, Elazığ, Erzincan, Eskişehir, Gümüşhane, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Malatya, Muğla, Nevşehir, Sivas, Trabzon, Tunceli (BEYARSLAN 2015).

General distribution: Holarctic. Austria, Azerbaijan, Belgium, Bulgaria, Canada, Croatia, Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Iran, Italy, Kazakhstan, Lithuania, Mongolia, Poland, Russia, Spain, Sweden, Switzerland, U.S.A. (Alaska, California, Connecticut, Georgia, Idaho, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Vermont, Virginia, Wisconsin, Wyoming), United Kingdom, Uzbekistan, Yugoslavia.

Hosts: **Lepidoptera, Crambidae:** *Loxostege sticticalis* (LINNAEUS, 1761). **Gelechiidae:** *Scrobipalpa atriplicella* (ROSLERSTAMM, 1841), *Syncopacma coronillella* (TREITSCHKE, 1833). **Gracillariidae:** *Acrocercops brongniardella* (FABRICIUS, 1798), *Caloptilia* sp., *Caloptilia alchimiella* (SCOPOLI, 1763), *C. anthobaphes* (MEYRICK, 1921), *C. betulicola* (HERING, 1928), *C. robustella* JÄCKH, 1972, *Choreutis pariana* (CLERCK, 1759), *Parornix alta* (BRAUN, 1925), *P. geminatella* (PACKARD, 1869), *Phyllonorycter* sp., *Phyllonorycter harrisella* LINNAEUS, 1761), *P. ostryaefoliella* (CLEMENS, 1859), *P. propinquella* (BRAUN, 1908), *P. ulmifoliella* (HÜBNER, 1817). **Lyonetiidae:** *Leucoptera malifoliella* (COSTA, 1836). **Momphidae:** *Mompha raschkiella* (ZELLER, 1839). **Diptera, Anthomyiidae:** *Pegomya hyoscyami* (PANZER, 1809). **Tephritidae:** *Euphranta (Euphranta) connexa* (FABRICIUS, 1794), *Plioreocepta poeciloptera* (SCHRANK, 1776), *Tachydromia connexa* MEIGEN, 1822.

****Rhysipolis enukidzei* TOBIAS, 1976**

Distribution in Turkey: Ardahan, Elağzı, Iğdır, Kars (BEYARSLAN 2015).

General distribution: Palearctic. Azerbaijan, Georgia, Hungary, Japan, Kazakhstan, Korea, Poland, Russia, Ukraine.

Hosts: Unknown.

****Rhysipolis hariolator* (HALIDAY, 1836)***Rogas hariolator* HALIDAY, 1836:*Rhysipolis hariolator*; PAPP 1975: 21.

Distribution in Turkey: Aksaray, Ardahan, Aydın, Denizli, Erzincan, Erzurum, Eskişehir, Gümüşhane, Iğdır, Kars, Kayseri, Kırşehir, Konya, Malatya, Sinop, Tokat, Tunceli (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Azerbaijan, Belgium, Bulgaria, Czech Republic, Czechoslovakia, Finland, France, Germany, Hungary, Italy, Japan, Moldova, Mongolia, Netherlands, Poland, Sweden, Switzerland, Ukraine, United Kingdom.

Hosts: **Lepidoptera, Cosmopterigidae:** *Cosmopterix zieglerella* HÜBNER, 1810. **Gracillariidae:** *Caloptilia alchimiella* (SCOPOLI, 1763), *C. elongella* (LINNAEUS, 1761), *Parornix betulae* STANTON, 1854), *P. devoniella* (STANTON, 1850), *P. fagivora* (FREY, 1861), *P. petiolella* (FREY, 1863), *P. scoticella* (STANTON, 1850), *P. torquillella* (ZELLER, 1850), *Phyllonorycter coryli* (NICELLI, 1851), *P. froelichiella* (ZELLER, 1839), *P. heegeriella* (ZELLER, 1846), *P. Kleemannella* (FABRICIUS, 1781), *P. nicellii* (STANTON, 1851), *P. quercifoliella* (ZELLER, 1839).

Rhysipolis mediator* (HALIDAY, 1836)Rogas mediator* HALIDAY, 1836: 4.*Rhysipolis mediator*; KIRCHNER 1867: 285.

Distribution in Turkey: Aksaray, Amasya, Aydın, Denizli, Edirne, Elazığ, Erzincan, Erzurum, Eskişehir, Iğdır, Kars, Kayseri, Kırıkkale, Kırşehir, Nevşehir, Niğde, Sivas, Tekirdağ, Tokat, Tunceli (BEYARSLAN 2015).

General distribution: Palearctic, Oriental. Austria, Belgium, China, Czech Republic, Czechoslovakia, Finland, France, Germany, Hungary, Iran, Ireland, Italy, Kazakhstan, Korea, Lithuania, Moldova, Mongolia, Poland, Russia.

Hosts: **Coleoptera, Gasterophilidae:** *Magdalinus* sp. **Diptera, Anthomyiidae:** *Pegomya hyoscyami* (PANZER, 1809). **Tephritidae:** *Euphranta connexa* (FABRICIUS, 1794). **Lepidoptera, Crambidae:** *Loxostege sticticalis* (LINNAEUS, 1761). **Elachistidae:** *Elachista* sp., **Gelechiidae:** *Scrobipalpa atriplicella* (FISCHER von ROSLERSTAMM, 1841), *Syncopacma coronillella* TREITSCHKE, 1833), *Teleiodes luculella* (HÜBNER, 1813). **Gracillariidae:** *Acrocercops brongniardella* (FABRICIUS, 1798), *Caloptilia alchimiella* (STANTON, 1850), *C. robustella* JACKH, 1972, *C. rufipennella* (HÜBNER, 1796), *Gracillaria syringella* (FABRICIUS, 1794), *Parornix* sp., *Phyllonorycter* sp., *Phyllonorycter emberizaepennella* (BOUCHÉ, 1834), *P. ilicifoliella* (DUPONCHEL, 1843), *P. nigrescentella* (LOGAN, 1851), *P. quercifoliella* (ZELLER, 1839), *P. roboris* (ZELLER, 1839). **Lyonetiidae:** *Leucoptera laburnella* (STANTON, 1851). **Momphidae:** *Mompha raschkiella* (ZELLER, 1839), *Mompha terminella* (HUMPHREYS & WESTWOOD, 1845). **Tineidae:** *Agnathosia mendicella* (DENIS & SCHIFFERMÜLLER, 1775). **Tischeriidae:** *Emmetia gaunacella* (DUPONCHEL, 1843). **Tortricidae:** *Ancylis mitterbacheriana* (DENIS & SCHIFFERMÜLLER, 1775), *Caloptilia betulicola* (HERING, 1928), *Cydia osmophorana* (TREITSCHKE, 1835).

Genus *Rhysalus* HALIDAY, 1833****Rhysalus clavator* HALIDAY, 1833**

Distribution in Turkey: Giresun (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Bulgaria, Croatia, Czechos-

lovakia, Finland, France, Germany, Hungary, Ireland, Lithuania, Netherlands, Poland, Russia, Switzerland, United Kingdom, Yugoslavia.

Hosts: Unknown.

Genus *Spathiomorpha* TOBIAS, 1976

**Spathiomorpha varinervis* TOBIAS, 1976

Distribution in Turkey: Samsun (BEYARSLAN 2015).

General distribution: Western Palaearctic. Azerbaijan, Georgia, Macedonia, Russia, Yugoslavia.

Hosts: Unknown.

Genus *Spathius* NEES, 1819

Spathius (Spathius) brevicaudis RATZEBURG, 1844

Distribution in Turkey: Bursa, Cumalıkızık Köyü (BEYARSLAN, 2016 in print).

General distribution: Palaearctic and Oriental. Austria, Azerbaijan, Bulgaria, China, former Czechoslovakia, Denmark, France, Georgia, Germany, Hungary, Italy, Japan, Kazakhstan, Korea, Moldova, Mongolia, Poland, Romania, Russia, Slovakia, Sweden, Switzerland, former Yugoslavia.

Hosts: **Coleoptera. Buprestidae:** *Agrilus viridis* LINNAEUS, 1758. **Cerambycidae:** *Acanthocinus griseus* (FABRICIUS, 1792), *Anthaxia quadripunctata* (LINNAEUS, 1758), *A. (A.) manca* (LINNAEUS, 1767), *Arhopalus coreanus* (SHARP, 1905), *Exocentrus lusitanus* (LINNAEUS, 1767). **Curculionidae:** *Carphoborus minimus* (FABRICIUS, 1798), *Ceutorhynchus pallidactylus* (MARSHAM, 1802), *Dryocoetes autographus* (RATZEBURG, 1837), *Hylesinus fraxini* (PANZER, 1779), *Ips acuminatus* (GYLLENHAL, 1827), *I. typographus* (LINNAEUS, 1758), *Lixus (Eulixus) bidens* CAPIOMONT, 1874, *Magdalis (Magdalis) frontalis* (GYLLENHAL, 1827), *M. (Magdalis) violacea* (LINNAEUS, 1758), *Niphades variegatus* (FAUST, 1890), *Orthotomicus angulatus* (EICHHOFF, 1876), *Phloeotribus rhododactylus* (MARSHAM, 1802), *Pissodes (Pissodes) castaneus* (DE GEER 1775), *P. notatus* (FABRICIUS, 1775), *Pityogenes bidentatus* (HERBST, 1784), *P. bidentatus* (HERBST, 1784) (syn. *Bostrichus bidens*), *P. chalcographus* (LINNAEUS, 1761), *Pityophthorus micrographus* (LINNAEUS, 1758), *Polygraphus subopacus* THOMSON, 1871, *Rhynchaenus quercus* (LINNAEUS, 1758), *R. salicis* (LINNAEUS, 1758), *R. testaceus* (MÜLLER, 1776), *R. fagi* (LINNAEUS, 1758), *R. pilosus* (FABRICIUS, 1781), *Scolytus intricatus* (RATZEBURG, 1837), *S. koenigi* SCHEVYREW, 1890, *S. laevis* CHAPUIS, 1869, *S. mali* (BECHSTEIN, 1805), *S. multistriatus* (MARSHAM, 1802), *S. rugulosus* (MÜLLER, 1818), *Shirahoshizo insidiosus* (ROELOFS, 1875), *S. pini* MORIMOTO, 1962, *S. rufescens* (ROELOFS, 1875), *Tomicus piniperda* (LINNAEUS, 1758) (Syn. *Blastophagus piniperda* (LINNAEUS, 1758)). **Scolytidae:** *Blastophagus minor* (HARTIG, 1834). **Hymenoptera. Xiphydriidae:** *Xiphydria longicollis* (GEOFFROY, 1785).

Spathius (Spathius) curvicaudis RATZEBURG, 1844

Distribution in Turkey: Turkey (SCHIMITSCHEK 1944; HEDQVIST 1976); Adana, Osmaniye, Denizli, Kırklareli, Sinop, (BEYARSLAN 2015).

General distribution: Western Palearctic. Azerbaijan, Czech Republic, Czechoslovakia, France, Germany, Hungary, Italy, Lithuania, Moldova, Netherlands, Poland, Russia, Slovakia, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Hedobia pubescens* (OLIVIER, 1790), *Xestobium plumbeum* (ILLIGER, 1801). **Buprestidae:** *Agrilus biguttatus* (FABRICIUS, 1776), *A. pannonicus* (PILLER & MITTERPACHER, 1783), *A. roberti* (CHEVROLAT, 1837), *A. subauratus* (GEBLER, 1833), *A. sulcicollis* (LACORDAIRE, 1835). **Cerambycidae:** *Callidium aeneum* (DE GEER, 1775), *Obrium cantharinum* (LINNAEUS, 1767), *Phymatodes pusillus* (FABRICIUS, 1787), *P. Testaceus* (LINNAEUS, 1758), *Pyrrhidium sanguineum* (LINNAEUS, 1758). **Curculionidae:** *Magdalis carbonaria* (LINNAEUS, 1758), *Scolytus intricatus* (RATZEBURG, 1837). **Hymenoptera, Argidae:** *Xiphydria camelus* (LINNAEUS, 1758), *X. Longicollis* (GEOFFROY, 1785), *X. prolongata* (GEOFFROY, 1785), *X. pantherinus* (SAVENIUS, 1825).

****Spathius (Spathius) erythrocephalus* WESMAEL, 1838**

Spathius erythrocephalus WESMAEL, 1838: 11.

Distribution in Turkey: Samsun (BEYARSLAN 2015).

General distribution: Western Palearctic. Austria, Azerbaijan, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Israel, Italy, Madeira Islands, Poland, Russia, Spain, Sweden, Switzerland, Tunisia, Ukraine, United Kingdom.

Hosts: **Coleoptera, Anobiidae:** *Ochina ptinoides* (MARSHAM, 1802). **Buprestidae:** *Capnodis tenebrionis* (LINNAEUS, 1758). **Cerambycidae:** *Callidiellum rufipenne* (MOTSCHULSKY, 1860), *Callidium aeneum* (DE GEER, 1775), *Phymatodes testaceus* (LINNAEUS, 1758). **Curculionidae:** *Crypturgus cinereus* (HERBST, 1793), *Scolytus mali* (BECHSTEIN & SCHARFENBERG, 1805). **Lepidoptera, Tineidae:** *Opogona* sp. **Sesiidae:** *Synanthedon vespiformis* (LINNAEUS, 1761). **Hymenoptera, Xiphydriidae:** *Xiphydria longicollis* (GEOFFROY, 1785).

****Spathius (Spathius) exarator* (LINNAEUS, 1758)**

Ichneumon exarator (LINNAEUS, 1758)

Spathius (Spathius) exarator; MARSHALL 1885: I.

Distribution in Turkey: (BEYARSLAN 2015).

General distribution: Holarctic, Oceanic, Oriental. Armenia, Austria, Azerbaijan, Belgium, Bulgaria, China, Croatia, Czech Republic, Czechoslovakia, Finland, France, Germany, Greece, Greenland, Hungary, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Moldova, Mongolia, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Anobium inexpectatum* (LOHSE, 1954), *A. punctatum* (DE GEER, 1774), *Dendrobium pertinax* (MULSANT & REY, 1863), *Dorcatoma pilosodorcatoma setosella setosella* (MULSANT & REY, 1864), *D. dresdensis* (HERBST, 1792), *Ernobius mollis* (LINNAEUS, 1758), *E. nigrinus* (STURM, 1837), *Grynobius planus* (FABRICIUS, 1787), *Ochina ptinoides* (MARSHAM, 1802), *Ptilinus pectinicornis* (LINNAEUS, 1758), *P. pectinicornis* (LINNAEUS, 1758), *Ptinus (Ptinus) fur* (LINNAEUS, 1758), *Scolytus fagi* WALSH 1867, *Stegobium paniceum* (LINNAEUS, 1761), *Xestobium rufovillosum* (DE GEER, 1774), *X. rufovillosum* (DE GEER, 1774). **Buprestidae:** *Agrilus ater* (LINNAEUS, 1767), *Anthaxia godeti* (LAPORTE DE CASTELNAU & GORY, 1847), *A. quadripunctata* (LINNAEUS, 1758), *Melanophila cyanea* (FABRICIUS, 1775), *M. utulata* (GEBLER, 1830). **Cerambycidae:** *Acanthocinus aedilis* (LINNAEUS, 1758), *Callidium abdominale* (FABRICIUS, 1787), *C. aeneum* (DE GEER, 1775), *C. violaceum* (LINNAEUS, 1758), *Clytus tropicus* (PANZER, 1795), *Exocentrus lusitanus* (LINNAEUS, 1767), *Molorchus (Molorchus) minor* (LINNAEUS, 1758), *Monochamus galloprovincialis* (OLIVIER, 1795), *Phymatodes pusillus pusillus* (FABRICIUS, 1787), *P. testaceus* (LINNAEUS, 1758), *Pogonocherus hispidus* (LINNAEUS, 1758), *Rhagium inquisitor* (LINNAEUS, 1758), *Semanotus undatus* (LINNAEUS, 1758), *Stenostola*

ferrea (SCHRANK, 1776), *S. ferrea* (SCHRANK, 1776), *Tetropium castaneum* (LINNAEUS, 1758), *T. fuscum* (FABRICIUS, 1787), *T. gabrieli* (WEISE, 1905), *T. gracilicorne* (REITER, 1889). **Chrysomelidae:** *Chrysomela alni* (LINNAEUS, 1758). **Curculionidae:** *Blastophagus piniperda* (LINNAEUS, 1758), *Cryphalus tiliae* (sensu C.G. THOMSON, 1865), *C. tibialis* (LEA, 1898), *Ernoporus fagi* (FABRICIUS, 1798), *Hylesinus fraxini* (PANZER, 1779), *Ips cembrae* (HEER, 1836), *I. sexdentatus* (BORNER, 1767), *I. subelongatus* (MOTCHULSKY, 1860), *I. Typographus* (LINNAEUS, 1758), *Magdalis (Magdalis) violacea* (LINNAEUS, 1758), *Pentarthrum huttoni* (WOLLASTON, 1854), *Phloeosinus serrifer* (WICHMANN, 1916), *Pissodes harcyniae* (HERBST, 1795), *P. nitidus* (ROELOFS, 1874), *P. notatus* (FABRICIUS, 1787), *Pityogenes bidentatus* (HERBST, 1784), *P. bidentatus* (HERBST, 1784), *Pityophthorus micrographus* (LINNAEUS, 1758), *Polygraphus subopacus* (THOMSON, 1871), *Rhyncolus culinaris* (HUSTACHE, 1931), *Rhynchaenus fagi* (LINNAEUS, 1758), *R. pilosus* (FABRICIUS, 1781), *R. quercus* (LINNAEUS, 1758), *R. salicis* (LINNAEUS, 1758), *R. testaceus* (MÜLLER, 1776), *Scolytus multistriatus* (MARSHAM, 1802), *S. rugulosus* (MÜLLER, 1818), *S. scotylus* (FABRICIUS, 1775). **Tephritidae:** *Trupanea stellata* (FUESSLIN, 1775). **Tortricidae:** *Cydia funebrana* (TREITSCHKE, 1835), *C. strobilella* (LINNAEUS, 1758). **Xiphydriidae:** *Xiphydria camelus* LINNAEUS, 1758), *X. prolongata* (GEOFFROY, 1785), *Xyela julii* (BREBISSON, 1818).

****Spathius (Spathius) polonicus* NIEZABITOWSKI, 1910**

Distribution in Turkey: Diyarbakır (Kuşburnu) (BEYARSLAN 2015).

General distribution: Palearctic. Armenia, Azerbaijan, Belarus, Czechoslovakia, Germany, Iran,

Italy, Netherlands, Poland, Russia, Slovakia, Spain, Switzerland, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Yugoslavia.

Hosts: **Coleoptera, Buprestidae:** *Agrilus constantini* (OBENBERGER, 1927), *Agrilus viridis* (LINNAEUS, 1758), *Anthaxia* sp., *Coraeus florentinus* (HERBST, 1801), *Lampra mirifica* (OBENBERGER, 1934), *Melanophila decastigma* (FABRICIUS, 1787), *M. melanophila picta* (PALLAS, 1773), *Sphenoptera davatchii* (DESCARPENTRIES, 1960), *Sphenoptera kaznakovi* (JAKOVLEV, 1899).

****Spathius (Spathius) radzayanus* RATZEBURG, 1848**

Distribution in Turkey: Adana, Osmaniye, Adapazarı, Ankara, Bursa, Çanakkale, Denizli, Samsun, (BEYARSLAN 2015).

General distribution: Palearctic, Oriental. Bulgaria, China, Croatia, Czechoslovakia, Georgia, Germany, Hungary, Italy, Japan, Kazakhstan, Korea, Latvia, Mongolia, Poland, Ukraine.

Hosts: **Coleoptera, Buprestidae:** *Agrilus auricollis* (KIESENWETTER, 1857), *A. biguttatus* (FABRICIUS, 1776), *A. viridis* (LINNAEUS, 1758). **Anobiidae:** *Anobium abietis* (FABRICIUS, 1792), *Ernobius nigrinus* (STURM, 1837). **Cerambycidae:** *Exocentrus lusitanus* (LINNAEUS, 1767), *Rhagium inquisitor* (LINNAEUS, 1758). **Curculionidae:** *Hypothenemus obscurus* (FABRICIUS, 1801, syn. *Pissodes obscurus*), *Rhinocyllus conicus* (FRÖLICH, 1792). **Scolitidae:** *Blastophagus piniperda* (LINNAEUS, 1758). **Sesiidae:** *Synanthedon conopiformis* (ESPER, 1782), *Synanthedon vespiformis* (LINNAEUS, 1761). **Oligochaeta, Lumbricidae:** *Rhinocyllus depressicornis* (SMITH, 1827).

***Spathius (Spathius) rubidus* (ROSSI, 1794)**

Ichneumon rubidus ROSSI, 1794.

Spathius (Spathius) rubidus; KU, BELOKOBYSKIJ, CHA 2001: 23.

Distribution in Turkey: Turkey (SCHIMITSCHEK 1944).

General distribution: Holarctic. Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, Canary Islands, Croatia, Cyprus, Czech Republic, Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Iran, Ireland, Italy, Japan, Kazakhstan, Korea, Lithuania, Moldova, Morocco, Netherlands, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, U.S.A.(California, Oregon, Texas), Ukraine, United Kingdom, Yugoslavia.

Hosts: **Coleoptera, Anobiidae:** *Anobium rufipes* FABRICIUS, 1792, *A. punctatum*. DE GEER, 1774, *Ernobius longicornis* (STURM, 1837), *Hedobia imperialis* (LINNAEUS, 1767), *Ochina (Cittobium) ptinoides* (MARSHAM, 1802). **Bostrichidae:** *Scobicia chevrieri* (VILLA & VILLA, 1835), *Sinoxylon sexdentatum* (OLIVIER, 1790), *Xylopertha praeusta* (GERMAR, 1817), *X. retusa* (OLIVIER, 1790). **Buprestidae:** *Agrilus convexicollis* REDTENBACHER, 1849, *A. angustulus* (ILLIGER, 1803), *A. auricollis* KIESENWETTER, 1857, *A. biguttatus* (FABRICIUS, 1776), *A. viridis* (LINNAEUS, 1758), *A. laticornis* (ILLIGER, 1803), *Melanophila picta* ZASHEV & KEREMIDCHIEV, 1968. **Cerambycidae:** *Leiopus nebulosus* (LINNAEUS, 1758), *Phymatodes testaceus* (LINNAEUS, 1758), *Pogonocherus fasciculatus* (DE GEER, 1775), *Pyrrhidium sanguineum* (LINNAEUS, 1758), *Saperda populnea* (LINNAEUS, 1758), *Tetrops praeustus praeustus* (LINNAEUS, 1758), *T. starki* CHEVROLAT, 1859. **Chrysomelidae:** *Agelastica alni* (LINNAEUS, 1758). **Colydiidae:** *Synchita mediolanensis* VILLA & VILLA, 1836. **Curculionidae:** *Blastophagus minor* (HARTIG, 1834), *Carphoborus minimus* (FABRICIUS, 1798), *Ceutorhynchus quadridens* PANZER, 1795, *Conophthorus coniperda* (SCHWARZ, 1895), *Cryphalops tiliae* (PANZER, 1793), *Crypturgus cinereus* (HERBST, 1793), *Hylesinus fraxini* (PANZER, 1779), *H. Thujae* PERRIS, 1855, *Ips acuminatus* (GYLLENHAL, 1827), *I. latidens* (LE CONTE, 1874), *I. latidens* (LE CONTE, 1874), *I. subelongatus* MOTCHULSKY, 1860, *Lixus (Eulixus) bidens* CAPIOMONT, 1874, *Magdalis carbonaria* (LINNAEUS, 1758), *M. cerasi* (LINNAEUS, 1758), *M. rufa* GERMAR, 1824, *M. ruficornis* (LINNAEUS, 1758), *M. (Magdalis) frontalis* (GYLLENHAL, 1827), *Phloeosinus bicolor* (BRULLÉ, 1832), *Phloeotribus lecontei* SCHEDL, 1962, *P. scarabaeoides* (BERNARD, 1788), *Pissodes castaneus* (DE GEER, 1775), *P. castaneus* (DE GEER, 1775), *P. notatus* (FABRICIUS, 1787), *P. validirostris* (SAHLBERG, 1834), *Pityogenes bidentatus* (HERBST, 1783), *P. calcaratus* (EICHHOFF, 1878), *P. chalcographus* (LINNAEUS, 1761), *P. quadridens* (HARTIG, 1834), *Pityophthorus puberulus* (LECONTE, 1868), *Rynchaenus quercus* (LINNAEUS, 1758), *Scolytus intricatus* (RATZEBURG, 1837), *S. multistriatus* (MARSHAM, 1802), *S. pygmaeus* (FABRICIUS, 1787), *S. rugulosus* (MÜLLER, 1818), *S. scolytus* (FABRICIUS 1775), *S. opacus* BLACKMAN, 1934. **Xiphidiidae:** *Xiphidria longicollis* (GEOFFROY, 1785), *X. prolongata* (GEOFFROY, 1785).

Discussion

The Doryctinae fauna of Turkey is still rather poorly studied. The present checklist of Turkish Doryctinae fauna revealed the existence of 62 species belonging to 25 genera so far (SCHIMITSCHEK 1939, 1941, 1944; HEDQVIST 1976; BELOKOBYSKIJ 2001; BEYARSLAN & AYDOGDU 2013; BEYARSLAN 2015). Of these, 40 species are distributed only in Asian Turkey and one species are distributed only in European Turkey, while 22 species occur in both. Previous studies were conducted in forest parts of Turkey and 7 species were recorded. The most common species is *Hormius moniliatus* (NEES) and it was collected from 125 localities. *H. moniliatus* (NEES) has been recorded from Holarctic, Nearctic, Oceanic, and Oriental regions and is known to have 15 host species (forest pests). Doryctine species are parasitoids of bark beetles, which are very important forest pests. They are important population regulatory factors of species of Coleoptera,

Diptera, Lepidoptera, Hymenoptera, and Diptera (SHAW & HUDDLESTON 1991). The following doryctine species are known to have more host species: the number of host species *Colastes (Colastes) braconius* HALIDAY is 104, of *Spathius (S.) exarator* (LINNAEUS) is 74, of *S. (S.) rubidus* (ROSSI) 65, and of *Ecphylyus (E.) silesiacus* (RATZEBURG) is 60 and of *Oncophanes (Oncophanes) minutus* (WESMAEL) is 60. The zoogeographical distributions of species of Doryctinae are as follows: 42 species are recorded only from Palearctic (6 species from the Eastern Palearctic, 17 species from the Western Palearctic), 11 species from Palearctic and Oriental, 2 species from Holarctic, Oceanic and Oriental, 1 species from Holarctic and Oriental, 1 species from Holarctic and Oceanic and 5 species from Holarctic region. The distribution area of *Colastes (Colastes) braconius* HALIDAY is the Palearctic region. It was introduced into many parts of America to be used in biological control of forest pests (USA-Delaware, USA-New Jersey, USAPennsylvania) (HENDRICKSON & BARTH 1979).

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Zusammenfassung

Vorliegende Arbeit behandelt den aktuellen Stand der Doryctinae (Hymenoptera: Braconidae) in der Türkei. Für alle Arten werden die Verbreitung in der Türkei, die Gesamtverbreitung sowie die bekannten Wirte genannt. Insgesamt gelang der Nachweis von 63 Arten aus 25 Gattungen.

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